

Chapter 12 DNA and RNA

Section Review 12-1

Reviewing Key Concepts

Matching On the lines provided, match the letter of the scientist(s) with the description of his or their conclusions.

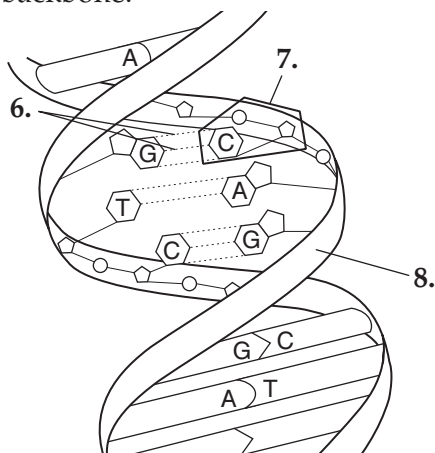
- a. Griffith
- b. Avery
- c. Hershey and Chase

- _____ 1. concluded that the genetic material of a bacteriophage is DNA
- _____ 2. concluded that DNA was the factor that transmits genetic information from one generation to the next.
- _____ 3. concluded that bacteria could be transformed from harmless to disease-causing by an unknown factor

Completion On the lines provided, complete the following sentences.

4. The structure of a DNA molecule can be described as a(an) _____.
5. The structure of DNA was discovered by _____ and _____.

Interpreting Graphics On the lines corresponding to the numbers on the diagram, identify the following parts of the DNA molecule: hydrogen bonds, nucleotide, sugar-phosphate backbone.



6. _____
7. _____
8. _____

Reviewing Key Skills

9. **Using Analogies** A double helix looks like a twisted ladder. Which parts of a twisted ladder are analogous to the hydrogen bonds and sugar-phosphate backbones of a double helix of DNA?

10. **Calculating** Use Chargaff's rules to determine the approximate percentage of thymine in a DNA molecule, if 28% of the nucleotides in the molecule contain adenine.
